General Specifications

Model YHC4150X
Portable HART® Communicator

The YHC4150X HART® Communicator is the latest HART communicator from Yokogawa Corporation of America. All HART® field devices can be configured, polled, and trimmed using the YHC4150X with HART® communications. The YHC4150X is a full function HART® Communicator supporting Universal, Common Practice and Device Specific commands for commissioning, configuration and maintenance operations.

Standard features include:

- 60 hours battery life (w/o backlight) using AA alkaline batteries
- Quick startup and connect: 15 seconds!
- Update new device profiles and firmware via the Internet – YHC4150X is never out of your hands
- Dongle coordinates AC power adapter and serial communication
- Clone / Upload / Download configurations
- Off-line mode for developing / reviewing configurations
- Document and store more than 200 configurations
- As-found / As-left history with DMS software
- 13-line, 128 x 128 pixel graphic, backlit display
- Full alpha-numeric keypad
- Edit directly from Review/Edit mode
- Quick Menu access key
- HART® menu Home key
- Dedicated text edit keys
- Programmable lock-out settings
- Contrast key for direct adjustment from any mode
- Elastic hand strap and adjustable shoulder strap
- Thumb keys (left hand) for menu Up, Down, and Select
- Custom “use-in-place” soft case with lead kit compartment

FEATURES & ADVANTAGES

YHC4150X supports all HART® devices at the Universal and Common Practice command levels plus a large and growing list of devices at the Device Specific command level. View our device list at http://fibu.yokogawa-usa.com/yhc4150.html

Use the YHC4150X to …

- Commission devices
  - Step-by-step configuration
  - Document as-left configuration
- Operations
  - Reconfiguration for process changes
  - Reconfiguration for batch runs
  - Document as-found and as-left configurations
  - Populate DMS database software
- Device Maintenance
  - Troubleshoot devices with HART®
  - View device error messages
  - Clone devices to commission replacements

SPECIFICATIONS

BASE UNIT: $10^{3}/8$”L x 4 $^{1}/4$” to 2 ½”W x 1 ¼” to 1 $^{7}/8$”D; ABS plastic case, 1.7 lbs. (w/ batts.)

KEYPAD: Membrane keypad: 4 soft, 8 single function, 30 dual function, 3 thumb keys

DISPLAY: 13 line, 128 x 128 pixel graphic display, 2.1” x 2.1” viewable area, backlight

POWER: Six AA alkaline; or 100 – 240 Vac power adapter. Use only approved alkaline batteries for Intrinsically Safe certified YHC4150X

TEMPERATURE SPECIFICATIONS:
Storage: -40° F to 140° F (-40° C to 60° C)
Operating: 23° F to 122° F (-5° C to 50° C)

CONNECTIONS:
Standard banana jacks (¾” center) for HART®, Odu connector for dongle. Dongle coordinates AC power and DB-9 serial communications

Certification: Intrinsically Safe: ATEX, $_{C}UL_{US}$ (approved AA alkaline batteries only)

Ex II 1 G
EEx ia IIC T4
Intrinsically safe, Exia
Class I, Div. 1 Groups A, B, C, D: T4
-5ºC<Ta<+50ºC

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YHC4150X HART® Communicator

YHC4150X	HART Communicator Includes CE Mark, HART Lead Kit with 250Ω adapter, Batteries, Communication / AC Adapter Dongle, RS-232 Serial Cable, Universal Power Adapter, Protective Boot, Soft Carrying Case, Adjustable Shoulder Strap, User Manual, CD (Includes User's Manual and DPC Manager Utility)
	Download Subscription
-01	Standard 3-year DOF Download Subscription

Example Part Number: YHC4150X-01

YHC4150X HART® Accessories

A900529-00014	HART Test Lead Kit (Included w/YHC) - Standard banana plugs, mini-grabbers, 250 ohm resistor
A36821	Std size 250 ohm shunt resistor (Incl'd w/YHC) - req'd for HART low resistance loops
A900447-00052	DB-9 cable, Male x Female, 6 ft length (incl'd w/YHC); required for updates / communication
4150-13	YHC Carrying Case (incl'd w/YHC) - custom soft case with adjustable shoulder strap and HART lead compartment
A36937	Adjustable, detachable hanging strap (incl'd w/YHC) clips directly to YHC attachment points.
4150-10A	Dongle (incl'd w/YHC) Communications and AC Adapter input to mating YHC connector
A36800	6 pack, AA Alkaline Batteries (incl'd w/YHC) 6 required for operation
9B000007	Power Adapter, 100 VAC to 240 VAC, 50-60 Hz universal plug kit (incl'd w/YHC)
IM61AYHC1-E-A	Paper Instructions for YHC4150X (Paper and PDF (On CD) instructions incl'd w/YHC)

YHC4150X HART® Software Options

DPC Manager Utility - Documentation Option; 1 license configuration Data Report	
DPCMAN-CFG-1	1 Client
DPCMAN-CFG-5	5 Client
DPCMAN-CFG-10	10 Client
DPCMAN-CFG-15	15 Client
	Standard 3-year DOF Download Subscription Renewal
DLS-Subscript-1	1-4 units
DLS-Subscript-5	5-9 units
DLS-Subscript-10	10-14 units

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DOF Subscriptions for YPC 4150X Multi-Function Tester with HART Communications

HART® communication support for the YHC4150X products and HART® smart field devices takes two forms. One is a Generic Device Object File (DOF) shipped with every YHC4150X unit. The Generic DOF enables Universal and Common Practice HART® commands to poll, write and execute analog trim and loop test functions on any HART® device. Device Specific Commands are supported by device specific DOFs. All device specific DOFs available at the time are included with each YHC4150X shipment. New device specific HART DOFs are added at a rate of 5 to 8 per month and posted on our Download Site at http://fibu.yokogawa-usa.com/yhc4150.html

A Subscription to the Download Site provides the user with access to YHC4150X firmware updates and all posted DOFs for a period of 3 years after YHC4150X shipment. Users will gain access to the Download Site by logging in with a User Name (YHC serial number, example 950680-S01 including hyphen) and Password (initially assigned but user can enter his own after first log in).

Why subscribe: 2 reasons
1. Products remain current. With the release of HART 6.0 specifications, new devices and new device revisions of older products will be released. This subscription will enable you to download DOF's for new devices and new revisions for older devices. Additionally, the exclusive Field Device Revision Independence (FDRI) allows YHC4150X to automatically map configurations from older devices to newer devices by the same manufacturer in the event of field replacement. This feature saves you valuable downtime, and is exclusive to the YHC4150X HART product.
2. Firmware updates. Periodically, enhancements, improvements, and or features are made available. You may also decide to add new options when they become available. The firmware is flashable (i.e. field upgradeable) so that the unit never has to leave the customer's facility for an update – the result is no down time.

$_{c}UL_{us}$ Technical Considerations

USL indicates investigation to the United States Standards
UL 913, Sixth Edition

CNL indicates investigation to Canadian National Standards
CAN/CSA C22.2 No. 157-92

Dongle Adapter and AC Power Supply

Each YHC has an electrical connector located at the top of the handheld. The connector provides fast and secure connection to the Communication / AC Adapter Dongle supplied with each handheld.

The Dongle is used to connect the AC adapter to the YHC when AC power is desired. The Dongle is also used to connect the YHC to a PC for serial communications.

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